

**PROPOSAL FOR FUNDING - ENHANCED COMMUNITY AIR QUALITY MONITORING
WORKPLAN (I) - SECTION 5 - QUALITY ASSURANCE STATEMENT**

The Bishop Paiute Tribe's EMO intends to carry out work under this potential agreement within a quality assurance system commensurate with the degree of confidence needed for the environmentally related data operations. A full quality assurance project plan (QAPP) or multiple QAPPs as needed will be completed prior to the collection, production, or use of this data. The QAPP/s will specify intended data usages and outline the corresponding quality measures to ensure conformity of the data collection with uses. It will also include SOPs for field data collection and data verification/validation.

The Air Quality Specialist will be responsible for the development and completion of the QAPP/s, and for carrying out the work in the field and ensuring that the data they gather meet the requirements of the QAPP/s. Responsibilities include:

- Developing and maintaining this QAPP;
- Developing QA documentation and providing answers to technical questions;
- Participating in training and certification activities;
- Writing and modifying standard operating procedures (SOPs);
- Verifying that all required QA activities are performed and that measurement quality standards are met as required in this QAPP;
- Following all manufacturer's specifications;
- Performing and documenting preventative maintenance and verifications;
- Documenting deviations from established procedures and methods;
- Reporting all problems and corrective actions to the supervisor;
- Assessing and reporting data quality;
- Preparing and delivering reports to the supervisor; and
- Flagging suspect data.

The following table is from the 2021 QAPP for Measuring Speciated Carbon Using an Aeth Labs MA200 Aethalometer, Citizen Science QAPP template Section 13, Training and Specialized Experience:

Person	Specialized Experience	Years of Experience
<i>Emma Ruppell</i>	<i>Proficient operation of:</i> <i>-Bacharach gas analyzer</i> <i>-opacity meter for on-road diesel</i> <i>-TAPI T640 FEM PM2.5 monitor</i> <i>-Thermo 1405 TEOM for FEM PM10</i> <i>-Thermo 1400/8500 FDMS TEOM for FEM PM2.5</i> <i>-Rad 7 continuous radon detector</i> <i>-Graywolf DirectSense IAQ probe</i> <i>-Thermo 49i ozone analyzer</i> <i>-TAPI 703E photometric ozone calibrator</i> <i>Thermo 42i NOx analyzer with CEMS</i> <i>-R&P DustScan Scout PM sensor</i> <i>-gravimetric cyclonic PM10 sampler</i> <i>Flowmeters: SL Pro, Delta Cal, Bios</i>	<i>2006 - 2021</i>

Additionally, the QAPP/s will include a distribution list, including EPA R9 staff, and discussion of project key staff. Additional key staff for the Air Program's FEM monitoring includes a Quality Manager, Level 2 data reviewers and third party auditors. The Air Quality Specialist will provide technical assistance for Partner activities if sample collections are to be in any way undertaken by Partner staff.

The Air Program's existing QAPPs for the FEM continuous monitoring describe at length the organization's general approach for conducting quality assurance, as well as criteria and/or process for determining acceptable data quality (e.g., precision, accuracy, representativeness, completeness, comparability, or data quality objectives). Calibrations, flow rate in particular, are an important of data qualifications, as well as instrumentation operational parameters, siting, scheduling, and comparison to ancillary data or nearby data sources.

The Tribe's 2021 QAPP and SOP for the micro aethalometer are available at <http://www.bishoptribeemo.com/library.htm>, along with the Air Program's existing QAPPs for continuous monitoring. The QAPP and SOP for the continuous aethalometer instrument will be available in the same location online once completed. It will be based on the current QAPP for the portable instrument, and on existing QAPPs which can be gained and adapted for the new instrument for the Tribe's air quality monitoring station including QAPPs for continuous monitoring instruments.

BISHOP TRIBAL COUNCIL

Brian Poncho,
Elders Program Manager
50 Tu Su Lane
Bishop, California 93514
(760) 873-3052 ext. 1360
email: brian.poncho@bishoppaiute.org



March 23, 2022

Re: Support for Enhanced Community Air Monitoring Project for Bishop Paiute Tribe

To Whom it May Concern:

The Bishop Paiute Tribe ("Tribe") Elders Program supports the efforts of the Tribe's Air Quality Program to promote the improvement of air quality for every person who is part of the Reservation community, by performing enhanced air quality monitoring using advanced technology. Our program would be willing to partner with the Air Program in advising on and/or sharing results of sampling locations for investigative sampling of combustion-sourced particulate matter pollution. This could include location selection, scheduling, and education/outreach about the air sampling.

The Tribe's Environmental Management Office is actively involved in conducting air pollution monitoring and reduction strategies. The Air Quality Program was established to monitor PM10, PM2.5, and other pollutants and weather on the Reservation. Hourly, daily, and monthly data from the Tribe's monitoring station and meteorological station are published in multiple locations online including AirNow. Pollutants related to woodstove home heating, wildfire smoke, and fugitive dust are confirmed to be significant. The Air Program has made estimates of vehicle and other types of emissions on the Reservation, though the estimates have not yet been substantiated. Approximately 90-130 burn permits are issued on the Reservation per year, under a permit system developed program in consultation with GBUAPCD, BRFPD, the Tribal Police Department and Tribal Council, and CalFire. Use of woodstoves for home heating continues to be prevalent on and surrounding the reservation. Additionally, Forest fire activity has increased in recent years, even with impacts from late season smoke combining with windblow dust during the storm season.

We support a project which will investigate further the composition of particulate matter pollution and share the results with community members.

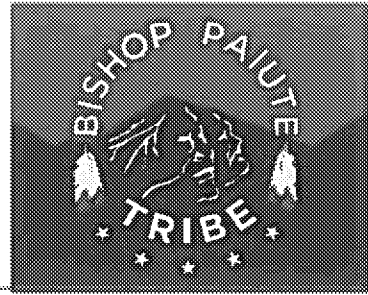
Sincerely,

A handwritten signature in black ink, appearing to be "B Poncho", written over a horizontal line.

Brian Poncho

BISHOP TRIBAL COUNCIL

Housing Management Office (Community Development)
48 Tu Su Lane
Bishop, California 93514



March 23, 2022

Re: Support for Enhanced Community Air Monitoring Project for Bishop Paiute Tribe

To Whom it May Concern:

The Bishop Paiute Housing Management Office supports the efforts of the Tribe's Air Quality Program to promote the improvement of air quality for every person who is part of the Reservation community, by performing enhanced air quality monitoring using advanced technology. Our program would be willing to partner with the Air Program in advising on and/or sharing results of sampling locations for investigative sampling of combustion-sourced particulate matter pollution. This could include location selection, scheduling, and education/outreach about the air sampling.

The Tribe's Environmental Management Office is actively involved in conducting air pollution monitoring and reduction strategies. The Air Quality Program was established to monitor PM10, PM2.5, and other pollutants and weather on the Reservation. Hourly, daily, and monthly data from the Tribe's monitoring station and meteorological station are published in multiple locations online including AirNow. Pollutants related to woodstove home heating, wildfire smoke, and fugitive dust are confirmed to be significant. The Air Program has made estimates of vehicle and other types of emissions on the Reservation, though the estimates have not yet been substantiated. Approximately 90-130 burn permits are issued on the Reservation per year, under a permit system developed program in consultation with GBUAPCD, BRFPD, the Tribal Police Department and Tribal Council, and CalFire. Use of woodstoves for home heating continues to be prevalent on and surrounding the reservation. Additionally, Forest fire activity has increased in recent years, even with impacts from late season smoke combining with windblow dust during the storm season.

We support a project which will investigate further the composition of particulate matter pollution and share the results with community members.

Sincerely,

A handwritten signature in cursive script, reading "Derrille Jones".

BISHOP TRIBAL COUNCIL

Monty Bengochia
Tribal Historic Preservation Office
50 Tu Su Lane
Bishop, California 93514
(760) 873-3584 ext. 1990



March 23, 2022

Re: Support for Enhanced Community Air Monitoring Project for Bishop Paiute Tribe

To Whom it May Concern:

The Bishop Paiute Tribal Historic Preservation Office supports the efforts of the Tribe's Air Quality Program to promote the improvement of air quality for every person who is part of the Reservation community, by performing enhanced air quality monitoring using advanced technology. Our program would be willing to partner with the Air Program in advising on and/or sharing results of sampling locations for investigative sampling of combustion-sourced particulate matter pollution. This could include location selection, scheduling, and education/outreach about the air sampling.

The Tribe's Environmental Management Office is actively involved in conducting air pollution monitoring and reduction strategies. The Air Quality Program was established to monitor PM10, PM2.5, and other pollutants and weather on the Reservation. Hourly, daily, and monthly data from the Tribe's monitoring station and meteorological station are published in multiple locations online including AirNow. Pollutants related to woodstove home heating, wildfire smoke, and fugitive dust are confirmed to be significant. The Air Program has made estimates of vehicle and other types of emissions on the Reservation, though the estimates have not yet been substantiated. Approximately 90-130 burn permits are issued on the Reservation per year, under a permit system developed program in consultation with GBUAPCD, BRFPD, the Tribal Police Department and Tribal Council, and CalFire. Use of woodstoves for home heating continues to be prevalent on and surrounding the reservation. Additionally, Forest fire activity has increased in recent years, even with impacts from late season smoke combining with windblow dust during the storm season.

We support a project which will investigate further the composition of particulate matter pollution and share the results with community members.

Sincerely,

M. Bengochia, mh/THPO

BISHOP TRIBAL COUNCIL

Phillip Fowler,
IT Director
50 Tu Su Lane
Bishop, California 93514
(760) 873-3584 ext. 1400
email: phil.fowler@bishoppaiute.org



March 23, 2022

Re: Support for Enhanced Community Air Monitoring Project for Bishop Paiute Tribe

To Whom it May Concern:

The Bishop Paiute Tribe ("Tribe") IT Department and KBPT radio supports the efforts of the Tribe's Air Quality Program to promote the improvement of air quality for every person who is part of the Reservation community, by performing enhanced air quality monitoring using advanced technology. Our program would be willing to partner with the Air Program in advising on and/or sharing results of sampling locations for investigative sampling of combustion-sourced particulate matter pollution. This could include location selection, scheduling, and education/outreach about the air sampling.

As a digital partner for the Environmental Management Office, KBPT Radio and the Bishop Paiute Tribe IT department have been supporting the Air Quality Program for years and will continue to proudly support the program in the future. In 2021 a supplemental monitoring station was set up outside our radio station. Current plans to construct a broadband network around the reservation are expected to support the installation of other environmental monitoring projects in areas currently difficult to connect to the internet. We believe this partnership will be a great help in monitoring and reducing harmful air quality conditions for the people of the Bishop Paiute Tribe.

We support a project which will investigate further the composition of particulate matter pollution and share the results with community members.

Sincerely,

A handwritten signature in black ink, appearing to read "Phillip Fowler".

-Phillip Fowler, IT Director
Bishop Indian Tribal Council
General Manager, KBPT-LP 96.1 FM
50 Tu Su Ln., Bishop, CA 93514
(760)873-3584 x1400

Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name:

Address:

City:

State: Zip Code:

B. DUNS No.

II. Is the applicant currently receiving EPA Assistance? ☒ Yes ☐ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

N/A

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

N/A

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

N/A

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

N/A

VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R. 5.140 and 7.95)

☒ Yes ☐ No

a. Do the methods of notice accommodate those with impaired vision or hearing?

☐ Yes ☒ No

b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?

☒ Yes ☐ No

c. Does the notice identify a designated civil rights coordinator?

☒ Yes ☐ No

VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a))

☒ Yes ☐ No

IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166)

☐ Yes ☒ No

- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.**

N/A

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.**

N/A

For the Applicant/Recipient

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

Brian Adkins

B. Title of Authorized Official

Tribal Administrator

C. Date

03/25/2022

For the U.S. Environmental Protection Agency

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. *Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

*** See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

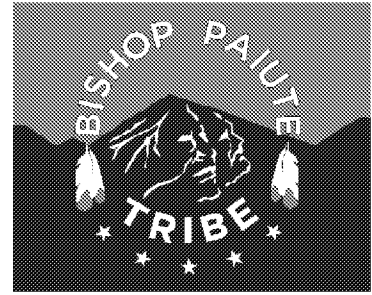
General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. * Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.

BISHOP TRIBAL COUNCIL

Thomas Gustie III,
Natural Resources Program
50 Tu Su Lane
Bishop, California 93514
(760) 873-3584 ext. 2130
email: thomas.gustie@bishoppaiute.org



March 23, 2022

Re: Support for Enhanced Community Air Monitoring Project for Bishop Paiute Tribe

To Whom it May Concern:

The Bishop Paiute Tribe ("Tribe") Natural Resources Program supports the efforts of the Tribe's Air Quality Program to promote the improvement of air quality for every person who is part of the Reservation community, by performing enhanced air quality monitoring using advanced technology. Our program would be willing to partner with the Air Program in advising on and/or sharing results of sampling locations for investigative sampling of combustion-sourced particulate matter pollution. This could include location selection, scheduling, and education/outreach about the air sampling.

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We support a project which will investigate further the composition of particulate matter pollution and share the results with community members.

Sincerely,

Thomas Gustie

Digitally signed by Thomas
Gustie
Date: 2022.03.23 11:12:24 -07'00'

Other Attachment File(s)

* Mandatory Other Attachment Filename:

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment



EPA KEY CONTACTS FORM

OMB Number: 2030-0020
Expiration Date: 06/30/2024

Authorized Representative: *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

Name:	Prefix: Ms.	First Name: Gloriana	Middle Name: M
	Last Name: Bailey		Suffix: MBA
Title:	Tribal Administrator		
Complete Address:			
Street1:	50 Tu Su Lane		
Street2:			
City:	Bishop	State:	CA: California
Zip / Postal Code:	93514-8058	Country:	USA: UNITED STATES
Phone Number:	760-873-3584	Fax Number:	760-873-4143
E-mail Address:	gloriana.bailey@bishoppaiute.org		

Payee: *Individual authorized to accept payments.*

Name:	Prefix:	First Name: Melissa	Middle Name:
	Last Name: Kilgore		Suffix:
Title:	Chief Financial Officer		
Complete Address:			
Street1:	50 Tu Su Lane		
Street2:			
City:	Bishop	State:	CA: California
Zip / Postal Code:	93514-8058	Country:	USA: UNITED STATES
Phone Number:	760-837-3577	Fax Number:	760-873-6144
E-mail Address:	melissa.kilgore@bishoppaiute.org		

Administrative Contact: *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

Name:	Prefix:	First Name: Brian	Middle Name:
	Last Name: Adkins		Suffix:
Title:	Environmental Director		
Complete Address:			
Street1:	50 Tu Su Lane		
Street2:			
City:	Bishop	State:	CA: California
Zip / Postal Code:	93514	Country:	USA: UNITED STATES
Phone Number:	760-873-3584	Fax Number:	760-873-4614
E-mail Address:	brian.adkins@bishoppaiute.org		

EPA KEY CONTACTS FORM

Project Manager: *Individual responsible for the technical completion of the proposed work.*

Name: **Prefix:** **First Name:** **Middle Name:**

Last Name: **Suffix:**

Title:

Complete Address:

Street1:

Street2:

City:

State:

Zip / Postal Code:

Country:

Phone Number:

Fax Number:

E-mail Address:

Project Narrative File(s)

* **Mandatory Project Narrative File Filename:**

Add Mandatory Project Narrative File

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

Delete Optional Project Narrative File

View Optional Project Narrative File

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2022

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. EPA-OAR-OAQPS-22-01 Enhanced Air Quality Monitoring for Communities, 2023	66.034	\$	\$	\$ 54,523.61	\$	\$ 54,523.61
2. EPA-OAR-OAQPS-22-01 Enhanced Air Quality Monitoring for Communities, 2024	66.034			12,874.33		12,874.33
3.						
4.						
5. Totals		\$	\$	\$ 67,397.94	\$	\$ 67,397.94

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	EPA-OAR-OAQPS-22-01 Enhanced Air Quality Monitoring for Communities, 2023	EPA-OAR-OAQPS-22-01 Enhanced Air Quality Monitoring for Communities, 2024			
a. Personnel	\$ 5,189.60	\$ 5,189.60	\$	\$	\$ 10,379.20
b. Fringe Benefits	1,868.26	1,868.26			3,736.52
c. Travel		1,400.00			1,400.00
d. Equipment	38,195.00				38,195.00
e. Supplies	2,200.00				2,200.00
f. Contractual	3,500.00	600.00			4,100.00
g. Construction					
h. Other	0.00	400.00			400.00
i. Total Direct Charges (sum of 6a-6h)	50,952.86	9,457.86			\$ 60,410.72
j. Indirect Charges	3,570.76	3,416.48			\$ 6,987.24
k. TOTALS (sum of 6i and 6j)	\$ 54,523.62	\$ 12,874.34	\$	\$	\$ 67,397.96
7. Program Income	\$	\$	\$	\$	\$

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	EPA-OAR-OAQPS-22-01 Enhanced Air Quality Monitoring for Communities, 2023	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
9.	EPA-OAR-OAQPS-22-01 Enhanced Air Quality Monitoring for Communities, 2024	0.00	0.00	0.00	0.00
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 54,523.60	\$ 42,277.15	\$ 4,082.15	\$ 4,082.15	\$ 4,082.15
14. Non-Federal	\$ 12,874.32	3,218.58	3,218.58	3,218.58	3,218.58
15. TOTAL (sum of lines 13 and 14)	\$ 67,397.92	\$ 45,495.73	\$ 7,300.73	\$ 7,300.73	\$ 7,300.73

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	EPA-OAR-OAQPS-22-01 Enhanced Air Quality Monitoring for Communities, 2023	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
17.	EPA-OAR-OAQPS-22-01 Enhanced Air Quality Monitoring for Communities, 2024				
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: 60410.71	22. Indirect Charges: 6987.23
23. Remarks: Indirect charges based on indirect cost rate of 38.57% approved by BIA June 22, 2021	

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Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

03/25/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

CA

8. APPLICANT INFORMATION:

* a. Legal Name:

Bishop Paiute Tribe

* b. Employer/Taxpayer Identification Number (EIN/TIN):

951905064

* c. Organizational DUNS:

0377187850000

d. Address:

* Street1:

50 Tu Su Lane

Street2:

* City:

Bishop

County/Parish:

* State:

CA: California

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

93514-8058

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Brian

Middle Name:

* Last Name:

Adkins

Suffix:

Title: Environmental Director

Organizational Affiliation:

Bishop Paiute Tribe

* Telephone Number:

760-873-3584

Fax Number:

760-873-4614

* Email:

brian.adkins@bishoppaiute.org

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

I: Indian/Native American Tribal Government (Federally Recognized)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities
Relating to the Clean Air Act

* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

* Title:

Enhanced Air Quality Monitoring for Communities

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

1235-14. Areas Affected by Project.pdf

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Proposal for funding under the American Rescue Plan Act, Enhanced Air Quality Monitoring for
Communities, 2023-2024, Bishop Paiute Reservation.

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="67,398.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="67,398.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

Manifest for Grant Application # GRANT13580406

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 30352 bytes)

Forms Included in Zip File(total 6):

1. Form ProjectNarrativeAttachments_1_2-V1.2.pdf (size 16146 bytes)

2. Form SF424_3_0-V3.0.pdf (size 24213 bytes)

3. Form SF424A-V1.0.pdf (size 23565 bytes)

4. Form EPA4700_4_3_0-V3.0.pdf (size 22646 bytes)

5. Form OtherNarrativeAttachments_1_2-V1.2.pdf (size 15909 bytes)

6. Form EPA_KeyContacts_2_0-V2.0.pdf (size 37369 bytes)

Attachments Included in Zip File (total 8):

1. ProjectNarrativeAttachments_1_2 ProjectNarrativeAttachments_1_2-Attachments-1234-Bishop Paiute Enhanced Air Quality Proposal.pdf application/pdf (size 343050 bytes)

2. SF424_3_0 SF424_3_0-1235-14. Areas Affected by Project.pdf application/pdf (size 88877 bytes)

3. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1237-Bishop Paiute Housing support letter.pdf application/pdf (size 40203 bytes)

4. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1239-Bishop Paiute Natural Resources support letter.pdf application/pdf (size 289192 bytes)

5. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1236-I 5. Quality Assurance Statement.pdf application/pdf (size 163755 bytes)

6. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1238-Bishop Paiute Elders support letter.pdf application/pdf (size 75428 bytes)

7. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1241-Bishop Paiute KBPT IT support letter.pdf application/pdf (size 225322 bytes)

8. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1240-Bishop Paiute THPO support letter.pdf application/pdf (size 40495 bytes)

14. Areas affected by Project

Bishop Paiute Reservation
Town of Bishop, CA
Surrounding Inyo County, CA



BISHOP PAIUTE TRIBE
ENVIRONMENTAL MANAGEMENT OFFICE – AIR QUALITY PROGRAM
PROPOSAL FOR FUNDING - ENHANCED COMMUNITY AIR QUALITY MONITORING

I. COVER PAGE

APPLICANT INFORMATION: Bishop Paiute Tribe, Environmental Management Office
50 Tu Su Lane, Bishop, CA 93514 **Fax:** 760 873 4614

APPLICANT CONTACTS:

Gloriana M. Bailey, MBA, Tribal Administrator	760 873 3584 x1300	gloriana.bailey@bishoppaiute.org
Brian Adkins, Environmental Director	760 873 3584 x2100	brian.adkins@bishoppaiute.org
Emma Ruppell, Air Quality Specialist	760 873 3584 x2110	emma.ruppell@bishoppaiute.org

DUNS: 037-718-785

SET-ASIDE: Tribal Set-aside

APPLICANT DESCRIPTION: The Bishop Paiute Tribe is a federally recognized tribe located in EPA Region 9. Initiated in 1995, the Bishop Tribe's Environmental Management Office (EMO) successfully administers a number of federally funded programs, including the EPA-funded Air Quality Program (§103 of the CAA), General Assistance Program, Water Quality Control Program (§106 and §319 of the CWA), Source Water Assessment and Protection Program, and the Exchange Network. In addition, EMO also administers other programs funded by the BIA, BOR, NRCS, DOE, and USDA.

PROJECT LOCATION: The Bishop Paiute Reservation is located in the Owens Valley in eastern California, near the Nevada border. The reservation itself comprises 875 contiguous acres and is flanked by the City of Bishop to the East. It is surrounded by private lands and by lands owned by the Los Angeles Department of Water and Power. The primary location of the project will be the Tribe's Air Quality Monitoring station, with supporting activity at additional locations as per partner participation.

AIR POLLUTANT SCOPE: Particle Pollution (particulate organic matter as elemental (black) carbon in fine and ultrafine particles).

BUDGET SUMMARY:

EPA Funding Requested	Total Project Cost
\$67,398	\$67,398

PROJECT PERIOD: January 1, 2023 – December 30, 2024

PROJECT DESCRIPTION: We propose to purchase, install, and operate a continuous aethalometer at the Tribe's air station to investigate the composition of particle pollution from combustion sources impacting the Reservation community, and to make ancillary data collections using portable aethalometers for spatial comparison with the continuous data. The data will be used to inform the Tribal community of potential health improvement and pollution reduction opportunities, as findings allow.

II. WORKPLAN

SECTION 1 - PROJECT SUMMARY AND APPROACH

A. OVERALL PROJECT

The project will enhance air quality monitoring in an underserved community by developing an advanced level of resolution to the current investigative abilities of the Air Program and the information it shares with the community, and by promoting the Partners' (described in Section 2) role in the design, locations, and purpose of the project. The Air Program will provide support to the community Partners in an effort to monitor air quality on the Reservation by combining its technical expertise, deployment of equipment, and volume of pollution-specific findings with the Partners' active knowledge of segments of the Reservation community.

The proposed project will examine the sources contributing to carbon combustion products in particulate matter, via the collection of continuous elemental (black) carbon measurements, supplemented by periodic sampling of this pollutant using strategically situated portable aethalometers. The primary activity, or first task, of the project is to purchase, install and operate a continuous aethalometer for elemental (black) carbon measurements in the PM_{2.5} and PM₁ range (fine and ultrafine particles) using a particle size selector option. The project second task is to purchase (1) and operate (2 including 1 existing) portable, or "satellite" micro aethalometers, for spatial and temporal data comparisons.

The measurements will be examined for the determination of sources likely contributing to particulate organic matter occurring in the area covered by the Tribe's FEM PM₁₀ and PM_{2.5} network area. The results, including spatially visualized data, will be communicated to the Tribal Leadership, Partners, EPA R9 staff, and shared publicly via the Bishop Tribe Air Program's online library. Overall statistical findings will be entered into the Tribe's cloud GIS service. The results will support EMO efforts such as emissions inventorying and backyard burn and other project permitting. Additionally, continuous data will be populated into the Quality Review and Exchange System for Tribes (QREST) for public viewing and access, and for validation.

Particulate organic matter is of interest to the EMO, and findings on black carbon pollution from this project may also be used to evaluate the need for further investigation of compounds of the US EPA's List of Hazardous Air Pollutants. *Polycyclic organic matter* is on the list of 30 Urban Air Toxic Pollutants, and is known to attach to dust particles in a combination of up to 100 chemicals, potentially forming soot (Agency for Toxic Substances and Disease Registry, 1996). The compounds have been detected in ambient air from sources including cigarette smoke, vehicle exhausts, asphalt roads, coal, coal tar, agricultural burning, residential wood burning, and hazardous waste (incineration) sites. (EPA, 2016) A National Research Council Report (1983) stated that wood-burning stoves were nonregulated sources of polyaromatic hydrocarbons, important in rural areas with restricted airflows.

B. PROJECT SIGNIFICANCE

The Bishop Tribe is the fifth largest tribe in California with 2144 members, with ~75% of members living on the reservation which has over 600 registered households, roughly 92% being native households. The 875-acre reservation (including residential land assignments) is in a rural setting, west of the town of Bishop, Owens Valley, Eastern California.

The principal pollutants of concern are PM-10 and PM-2.5. The two most important sources of particulate matters are dust and smoke, with smoke particles being smaller and generally falling in the PM-2.5 range. Particulate matter is a concern due to its impacts on health. Small particles can be inhaled and become lodged in the human lung. Both chronic and short-term exposure to particulate pollution increase the risk of premature mortality. Mortality risk is particularly increased for people with pre-

existing cardiac and respiratory conditions. In addition, cardiac and respiratory illness and asthma are aggravated by particulate pollution.

The Tribe's Source and Emissions Inventory (EI)- 2002, 2009, 2012, and 2019 revisions- identified key air quality concerns. Windblown particulates (dust and smoke) continue to be the principal concern. The EI identified several important on-reservation sources of air pollution including yard waste and trash burning (a source of dioxin, toxics, PM₁₀ and PM_{2.5}), wood smoke from residential heating, and dust from dirt roads. Use of woodstoves for home heating continues to be prevalent on and surrounding the reservation. The most consistent elevated levels of PM_{2.5} occur in the winter.

The 2019 EI revision revealed that totals of pollution from residential trash burning (and likely yard waste burning) were underestimated or at least would likely have increased, due to estimates of average household size. Additionally, the Tribe's 2020 Air Pollution Prevention Plan identified residential trash burning the highest priority source for reducing on-reservation emissions, reinforced by the Tribal Council's adoption of the Solid and Hazardous Waste Code which governs some aspects of the backyard burning practices on the Reservation. This Code, drafted in 2018, was delayed in adoption until 2021 after the pandemic, and enforcement strategies under development in 2022. The second source identified by the Plan is smoke from residential wood (and pellet) burning for home heating, and the third identified is burning vegetative waste. These studies are available on the Air Program's online library at <http://www.bishoptribeemo.com/library.htm>.

Fugitive dust and vehicle (mobile sources) PM pollution was also identified in the Plan, to a lesser extent, based on the emissions calculations in the EIs. The Tribe, however, has not undertaken in its 20 years of conducting FEM PM and meteorological monitoring, to obtain speciated concentration measurements of particulate pollution- with the exception of the purchase of a portable micro aethalometer in 2021. Sampling studies with the micro aethalometer in 2021 and 2022 demonstrated the importance of combustion of carbon-based fuels in the area, which all Reservation community members are in proximity to. Pollutants specific to the mobile source category were estimated in the EIs but have not been investigated prior to the micro aethalometer, and may continue to grow as development in the Bishop area continues. In early 2020, the Tribe finished and opened a new gas station on the Reservation, shortly following the installation of traffic lights in 2 locations on the Reservation boundary in anticipation of traffic volumes. The County opened the regional airport to commercial flight services in late 2021.

SECTION 2 - COMMUNITY INVOLVEMENT

A. COMMUNITY PARTNERSHIPS

Air quality statutes and regulations historically have been fostered by the EMO and Air Program, with staff partnering with Tribal leaders and other departments and organizations. The Tribe's jurisdiction is the 875 contiguous acres of the Bishop Paiute Reservation. In 2006, the Bishop Tribal Council adopted Tribal Air Quality standards governing PM₁₀, PM_{2.5}, ozone, and carbon monoxide. Housed on the Reservation are the various Tribal Departments and Programs, who frequently work together on data collection or facilities improvement projects. Potential partners who may work with the Air Program on this project as logistics allow include: the Tribe's Natural Resources Program, Community Development Department (CDD or Housing), KBPT Radio, The Elders Program, Toiyabe Indian Health Project Bishop Indian Head Start, Bishop Indian Education Center, Bishop Paiute Development Corporation, and the gaming/Casino group. Partners and the Air Program will together evaluate potential pollution sources, and partners' facilities may serve as alternate locations to the Bishop Air Quality Station for ancillary data collection using the portable micro aethalometer. Partners, as willing, may share the outcomes of the project with the segments of the community they serve. This approach aims to give these

community staff and members a voice in the monitoring of their air quality. Please see also the attached support letters (5 total).

The Air Program's CAA 103 funding workplan includes a dedicated task for air quality assessments. Past partnerships for air quality assessments include: Development of test protocol for surface methamphetamines at Tribal CDD homes now in use by CDD; measuring formaldehyde levels in FEMA mobile homes (2008); collection of continuous radon measurements at Head Start (2006, 2009, 2019, 2020) and Tribal Administration (2019, 2020) and residences (various years), sampling for PM, CO, CO₂, ozone in the on-reservation USFS/BLM building (2005); installation of a PurpleAir sensor at KBPT Radio with Great Basin Unified Air Pollution Control District (2021); dust control assessments at Bishop Paiute Development Corporation and Casino project development sites (2019-2020); PM_{2.5} sampling at Toiyabe Indian Health Project (2020), investigation of carbon monoxide at Tribal Administration (2021).

The Air Program and Natural Resources Program within the EMO also work with various departments, and up to roughly 120 residents a year, on controlled burning and backyard burning, via the issuing of burn permits. The Bishop Tribe's agreement with the Bishop Rural Fire Protection District (BRFPD) required the Tribe to adopt regulations for open burning that are at least as stringent as those used by GBUAPCD. In 2003, these regulations were incorporated into a burn permit program in consultation with GBUAPCD, BRFPD and CalFire, supported by The Tribe's Nuisance Ordinance and general Environmental Ordinance. In 2021, the Tribal Council approved the 2018 draft of the Solid and Hazardous Waste Code which governs some aspects of the backyard burning practices on the Reservation, as backyard burning is still as prevalent 20 years since the inception of burn permits. The Natural Resources Program also manages projects for open dump site surveys and remediation, and hazardous (fire) fuels reduction surveys and treatments.

B. COMMUNITY ENGAGEMENT

Outcomes of the project will be shared via official channels of information with the Tribal EPA Board, the EMO Director, Tribal Administration, and other Tribal partners (see above). Public sharing of the outcomes of the project will include publishing the reports (including the project QAPP) to the Air Library on the EMO website: <http://www.bishoptribeemo.com/library.htm>, and articles for the Tribal Newsletter. The website also has an Air Monitoring page, which directs viewers to real-time data, graphs, including the QREST website, where project data will be populated via importing (or polling if possible). The Air Quality Specialist will give to the extent possible, demonstrations of the outcomes and data to various other groups, including the Toiyabe Indian Health Preventive Medicine Group, the Tribe's management staff team, Bishop Indian Head Start Health Advisory Committee, and to other Tribes and EPA at workshops or conferences.

SECTION 3 - ENVIRONMENTAL JUSTICE AND UNDERSERVED COMMUNITIES

Environmental justice, as per EPA's definition, is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The project will promote the improvement of air quality for every person who is part of the Reservation community, due to the proximity of daily activities to pollution sources, by adding monitoring activities dedicated to what are indicated to be the relevant sources impacting the community's respiratory health, where regulatory instruments of protection may be limited. In 2010, the Air Program examined health and air quality, utilizing data from Toiyabe Indian Health Project. The study found modest evidence the impact of PM_{2.5} on pediatric visits, and some positive response to modeling PM_{2.5} concentration maxima to visits age >65 and respiratory and circulatory issue visits (also available on the Air Program's online library at <http://www.bishoptribeemo.com/library.htm>).

The Bishop Paiute Reservation is a low-income community with 81% of households below 2009 HUD Low Income Guideline, based on family size. Housing on the Reservation is varied in quality. Many are old “stick” structures or mobile homes which rely on woodstove burning for heat; cord wood, scrap wood and cuttings, or pellets being the most common fuels. Additionally, there are long-term residences in trailers not connected to the Tribe’s Public Works systems. The Tribe does not operate any waste management; residents may choose to use the service offered to Inyo County residents or self-manage waste. Backyard burning is the primary means of vegetative waste management on the residences.

The extreme temperatures of the Owens Valley mean high heating costs (via propane, electricity, and wood fuel) from November through April and high cooling costs (via electricity) from May through September, posing a significant financial burden for most Reservation households. California also has some of the highest electricity rates in the United States, and low-income families pay a much higher percentage of their income on utilities than the average U.S. household. Many of the houses do not qualify for filtration systems designed for airtight buildings and have only door and window ventilation. The primary means of air conditioning in the Owens Valley is evaporative cooling (swamp coolers), which typically do not have a complete filtration system, and have varying degrees of effectiveness depending on the condition of the pads. During winter and summer, a large extent of smoke impacts to ambient air locally is likely to exist indoors in many residences on the Reservation.

Prior to 2020, the median household income on the Reservation was estimated to be \$22,362, with an unemployment rate of just under 23%. 34% of households were below the poverty rate, based on 2009 Department of Health and Human Services (HHS) Poverty Guidelines, and 81% of households were below 2009 HUD Low Income Guideline, based on family size. Many of the community participate in what is a service-based economy for tourists, and were not all able to maintain cashflow and protect themselves to the full extent of governmental recommendations during the COVID-19 pandemic. Interruptions and delays to basic services such as police coverage, food distribution, clinic visits, elder support, and even burning permits occurred since spring 2020 as staffing on the Reservation was impacted. Due to Inyo County’s low overall population, the State did not (as of this writing) perform or assign the “health equity metric, defined as the positivity rate in the most disproportionately-impacted communities according to the Healthy Places Index”. Many native communities, however, have tried to raise awareness that with multi-family residences, a disproportionate impact in COVID-19 cases or case reporting may exist where multi-generational and multi-family residences are prevalent.

The impacts of wildfire smoke on our local air quality were lost on no-one during the 2020 wildfire season (summer and fall). Wildfire smoke is transported into the Owens Valley from large fires in the (usually) Western Sierra Nevada flanks. In 2020, there were 39 days with single or combined exceedances, with the highest PM₁₀ levels reaching the upper limit of the monitor, and >17 days of “Unhealthy” air, 4 days of “Very Unhealthy”, and 3 days of “hazardous”. Fire danger in 2020 and 2021 was declared so high, starting with the Creek Fire in 2020, that the public simply were not allowed to enter most areas of Inyo National Forest after sweeping closure announcements. These factors kept community members indoors, all over again after the worst of the pandemic months and facing more expenditures to attempt to mitigate indoor smoke, or outdoors and incurring respiratory health impacts of unknown duration and consequence. Additionally, Tribe’s Air Program provided the community with real-time PM_{2.5}, PM₁₀, meteorological data and- by request- daily smoke forecasts during the smoke episodes, but as of yet have only speculative information about the compounds in the smoke that was breathed by the community during this, and other, wildfire seasons. In August 2020, The Air Program was requested to investigate indoor PM_{2.5} at the Toiyabe Indian Health Project clinic on the Reservation, one of the greater area’s primary service locations for COVID-19 vaccines and treatments.

The community relies on multiple sources of information and resources for air quality information. Increasingly, and especially after the COVID-19 pandemic, online or virtual sources of information play an important role. The Air Program has published real time PM₁₀, PM_{2.5}, ozone, and meteorology data

to its website for several years, and hourly data online for over a decade, and along with other materials, are available via dedicated web pages (http://www.bishoptribeemo.com/index_air.htm). The Tribal FEM monitoring data also contributes to the AirNow coverage of the area. Community members may also rely on the PurpleAir sensor network, though this resource lacks the endorsement, interpretation, and visualizations that come with the Tribe's monitoring data via newsletter articles, visibility camera photos, automated alerts, illustrative reports, and official data verifications. The information gained from this project will be available online, and will also be shared in the most meaningful ways identified by Air Program and partnering staff, to reach out to community members who rely on augmented means of support. Strategies for inclusion of such community members in the past has included information booths at community events, phone calls and house and office visits, information distribution at the Elders Center, and Education Center activities.

SECTION 4 - ENVIRONMENTAL RESULTS - OUTCOMES, OUTPUTS AND PERFORMANCE MEASURES

A. EXPECTED PROJECT OUTPUTS AND OUTCOME

The project will generate datasets of hourly average concentrations of black carbon in fine and ultra-fine particles. The data will undergo verification and multi-level validation and can be submitted to AQS. Ancillary datasets from portable sampling at selected locations and/or intervals will be used to make comparisons of potential pollution sources, and recommendations will be made based on the findings as described above in Section II 1. A. Outcomes discussing the impacts and improvements to community members are discussed in the table for Output 3.1.

TASK	OUTPUTS	OUTCOMES
1. Collect and record continuous measurements of black carbon PM2.5	1.1 Evaluate, purchase, complete QAPP and install continuous aethalometer; operate at the Tribe's Air Quality Station	
	1.2 Configure aethalometer for polling or import data to QREST; perform verification and validation in preparation for quarterly submittal to AQS	Concentration values for this sampling method of combustion pollutants will be available to Tribal community members, decision makers, and the public; validated data will be available.
2. Collect and record ancillary pollution data at selected locations/intervals on the Reservation	2.1 Purchase as necessary and operate portable samplers such as the existing micro aethalometer	Concentration values for this sampling method pollutants will be available for comparison to continuous data; will be available to Tribal community members, decision makers, and the public; validated data will be available.
3. Ensure that the collected data is useable, accessible to the public, via ongoing sharing with appropriate stakeholders.	3.1 Complete data processing and evaluation with Partners; share results with Tribal Community	Consistent with the 2020 Air Pollution Prevention Plan's highest priority pollution reduction strategies, broadcast and case education and location-specific project data

		will increase the portion of the community familiar with localized pollution sources, including Tribal staff. Establishing inclusion, and an active role, of community members in a targeted environmental assessment will be an outcome, expanding ownership of the goal of improved health of the community over time, and also the goal of knowledge of what the community is breathing.
	3.2 Inform other tribes in the region and present results at workshops	Methods will be shared with Tribes wanting to examine combustion pollution sources

B. PERFORMANCE MEASURES AND PLAN

Project accomplishments will be documented in quarterly reports to EPA Region 9, according to the workplan tasks below. Special reports will be attached. Project accomplishments are also reported monthly to the TEPA Board, and the reports are available on request. Quarterly reports will be submitted within 30 days of the end of each quarter.

Continuous data and metadata will be tracked with dedicated software. All regular maintenance and calibration will be scheduled in an electronic calendar with recurrence as per the QAPP. All regular maintenance and QA/QC checks, diagnostics, repairs will be documented in logs and field forms, and regular reports. Documentation is reviewed quarterly by the QA Manager. AQS submissions can be verified through the EPA database or with R9 staff and are tracked quarterly with system reports. Special reports analyzing air quality data will be included with quarterly reports, and the report and related materials such as project QAPPS and SOPs will be published on the Air Program website. The Tribe's EMO website is available to the public at www.bishoptribeemo.com. Articles submitted to the Tribal newsletter will be included with quarterly reports, and archived online. Outreach activities will be documented and submitted with quarterly reports. Activity is tracked with an electronic calendar. Web analytics are tracked periodically, and for 2021, the site had an estimate of over 1020 views by "real users", including the EMO offices in Bishop.

Purchases will be documented through the purchasing and financial records system. Participation in any air quality workshops or presentations will be documented by including certifications and/or presentations in quarterly reports, and any travel summaries to the TEPA and other Tribal staff. Any inter-departmental and interagency activity on assistance with equipment, will be documented in reports and included in quarterly reports.

C. TIMELINE AND MILESTONES

The following milestone table summarizes the schedule and milestones associated with the project activities. The Air Quality Specialist will be responsible for coordinating and completing the tasks. Given the 1-year timeline for setting up the aethalometer and collecting ancillary data, dates are given as months from the start (0 months) of the project period.

Task	Subtask if applicable	Milestone	Milestone Description	Milestone Verification Process or Items	Anticipated Date (Months from Start)
1.0	1.1 Evaluate, purchase, complete QAPP and install continuous aethalometer; operate at the Tribe's Air Quality Station	1.a	Obtain purchasing approvals, order equipment	Completed competitive purchase packet with Fiscal Office, order confirmation, initial testing documents	0-2
		1.b	Complete continuous monitoring QAPP	Bid/s, TERO contract (if needed) and business contract for QAPP work; Completed QAPP working draft, submit to EPA (<i>EPA timeline is not determinable</i>)	0-5
		1.c	Begin regular continuous monitoring	Hourly data from the instrument	2-5
	1.2 Configure aethalometer for polling or import data to QREST; perform verification and validation in preparation for quarterly submittal to AQS	1.d	Coordinate programming of datalogger for new instrument values and units	Bid/s, TERO contract and business contract for datalogger work	2-5
		1.e	Add aethalometer to site config in QREST with AQS monitor info, configure polling, with data import into QREST as contingency	Hourly data from the instrument available online for public viewing	2-5
2.0	2.1 Purchase equipment for portable sampling (i.e. micro aethalometer)	2.a	Conduct community planning with partners	Meetings, correspondence, feasibilities and planning, selection of locations and scheduling	0-6

	(All Task 2 includes contingency timeline to accommodate partners)				
		2.b	Obtain purchasing approvals, order equipment	Purchase order, initial testing documents	0-6
		2.c	Complete/revise QAPP for portable sampling	Completed QAPP working draft, submit to EPA (EPA timeline is not determinable)	0-6
		2.d	Complete sampling runs and obtain ancillary data	Datasets, metadata from sampling runs	6-18
3.0	3.1 Complete data processing and evaluation with Partners; share results with Tribal Community	3.a	Perform data reduction using software such as QREST, R, excel, GIS web apps	Final Report with maps, data tables, photographs, published online and distributed to partners and to EPA	18-20
		3.b	Conduct community outreach to share results	Meetings, informational tables at Tribal or local events, demonstration of sampling instrumentation and web tools, overview of pollution sources and background information on air pollution	20-24
	3.2 Inform other tribes in the region and present results at workshops (timing may vary)	3.c	Inform other tribes in the region and present results at workshops	Presentation slides and/or poster	18-24

SECTION 5 - QUALITY ASSURANCE STATEMENT

Please reference the required and attached Quality Assurance Statement.

SECTION 6 - PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

A. PAST PERFORMANCE

The Bishop Tribe's EMO successfully administers a number of federally funded programs, including:

1. The EPA-funded Air Quality Program (§103 of the CAA)
2. General Assistance Program
3. Water Quality Control Program (§106, §319 of the CWA)
4. Source Water Assessment and Protection Program

Bishop Paiute Tribe, Enhanced Air Quality Monitoring for Communities

5. Exchange Network Program.

Protocols for completing workplan tasks, and tracking and reporting on deliverables is outlined in each agreement award (specific to the program and reporting period).

(In addition, EMO also administers other programs funded by the BIA, BOR, NRCS, DOE, and USDA.)

B. REPORTING REQUIREMENTS

Deliverables for the listed EPA programs are provided to EPA in a timely manner, along with required financial reports. Compliance with grant terms and conditions has been excellent.

Performance reviews and financial audits of prior year §103 CAA grant progress have shown the program to be in compliance with all requirements. In 2020, The Tribe's Air Program received a post-award Advanced Monitoring Evaluation from EPA R9 which highlighted the Program's ability to complete workplan activities and submit high quality deliverables on time, including quarterly technical reports, annual data summary, and annual financial report.

C. STAFF EXPERTISE

Please reference the required and attached Quality Assurance Statement (Section 5) for a summary of responsibilities and skills of the Air Quality Specialist. Emma Ruppell has 18 years of experience in the environmental arena, and has been the Air Quality Specialist for the Tribe since 2015, and manages the EMO's air quality monitoring activities including equipment operation, maintenance, and calibrations, coordinating contractual activities, and data processing. Air Program work can be viewed at the links provided in Section 2 B and Section 3 above. Additional Qualifications include work on GAP, DOE, and EPA (Exchange Network) projects, GIS, website maintenance, writing QAPPs and other documents, compliance air and water monitoring and sampling, hazardous materials and waste management activities, and public outreach.

SECTION 7 – BUDGET

A. BUDGET DETAIL

PERSONNEL

The project will cover the following staffing costs:

1. Air Quality Specialist: 20%FTE x \$24.95 = \$10,379.2

Please see the budget table also.

FRINGE BENEFITS

The project budget will cover the following fringe costs:

1. Air Quality Specialist: est. 36% wages and salaries (2020-2021 estimate) = \$3,736.51

Please see the budget table also.

TRAVEL

The project budget will cover the following travel estimated cost:

1. Air Quality Specialist: 1 out-of-town (domestic) workshop to obtain training or conference to present results, subject to current per diem rates including 2022 vehicle mileage rates and 2022 lodging, meals and incidentals rates. This is estimated at \$1,400 based on previous related costs and may be subject to change.

Please see the budget table also.

EQUIPMENT

The project budget will cover the following capital equipment costs:

1. Continuous aethalometer, such as Magee Scientific AE33 or similar instrumentation (may include accessories kit): \$28,300
2. Portable aethalometer, i.e., micro aethalometer such as Aeth Labs MA200: \$9,895

Please see the budget table also.

SUPPLIES

The project budget will cover the following supplies estimated costs:

1. Aethalometer sampling supplies such as batteries, tape, software etc., and supplies possibly needed for installation: \$2,000
2. Community meeting supplies (printable materials, etc.): \$200

Please see the budget table also.

CONTRACTUAL

The project budget will cover the following contractual estimated costs:

1. Annual calibration/certification, if necessary, of the continuous aethalometer: \$600
2. Third party Quality Assurance assistance with continuous aethalometer: \$1,000. This may include QA oversight of data validation, assistance QAPP development, or both.
3. Third party assistance with data acquisition and publishing: \$2,500. This includes programming the Tribe's air quality data acquisition to poll the continuous aethalometer.

Please see the budget table also.

OTHER CHARGES

The project budget will cover the following other estimated cost:

1. Shipping for calibration or service: \$600

Please see the budget table also.

INDIRECT CHARGES

The project budget will cover the Tribe's Negotiated Federal Indirect Cost rate as current, and as applied to budget categories minus capital equipment costs and contractual costs. Please see the budget table also.

Example Budget Table (Required, part of the 12-page limit) Line Item & Itemized Cost	EPA Funding
Personnel	
(1) Project Manager @ \$24/hr 10%FTE x 2 years	\$10,379.2
TOTAL PERSONNEL	\$10,379.2
Fringe Benefits	
Based on 2020-2021 estimate of 36% of Salary and Wages @ 20% x Total Personnel - Health Benefits, FICA, SUI	\$3,736.51
TOTAL FRINGE BENEFITS	\$3,736.51
Travel	
Specialized training/presentation of project at conference, based on recent conference travel cost estimates (see description)	\$1,400

TOTAL TRAVEL	\$1,400
Equipment	
1 continuous aethalometer based on 2021 pricing plus contingency	\$28,300
Portable aethalometer (micro aethalometer)	\$9,895
TOTAL EQUIPMENT	\$38,195
Supplies	
Aethalometer Supplies (see description)	\$2,000
Community meeting supplies	\$200
TOTAL SUPPLIES	\$2,200
Contractual	
Equipment certification/calibration	\$600
QA oversight/QAPP development	\$1,000
Data publishing	\$2,500
TOTAL CONTRACTUAL	\$4,100
Other	
Shipping	\$400
TOTAL OTHER	\$400
Indirect Charges	
Federal Indirect Cost Rate x (Personnel + Fringe + Supplies + Other) = Indirect Costs (Federal Negotiated Indirect Cost Rate = 38.57%)	\$6,987.23
TOTAL DIRECT COST	\$60,410.71
TOTAL INDIRECT COST	\$6,987.23
TOTAL FUNDING	\$67,398
TOTAL PROJECT COST	\$67,398

REASONABLENESS OF COSTS

Itemized costs are presented in the Budget Table, and Section 7.a. Budget Detail, and the SF-424A form. The *total project cost* is rounded up to the nearest dollar.

EXPENDITURE OF AWARDED FUNDS

The Air Program reports to EPA R9 on a quarterly basis, including reporting on *Administrative Assessment – adequacy of all financial systems, to meet 40CFR31 and OMB A-87*. The Tribe's fiscal annual fiscal audit is completed each year and is available via the Tribe's Fiscal Office. Final financial reports (SF425) are submitted to granting agencies. Any problems impacting performance, achievements, and proposed dates of completion would be included in the reports. The Air Program is within the EMO, which is overseen by the Tribe's Administration and Fiscal Offices. The Tribe adheres to a procurement policy with authorization as per the organizational structure, with tracking in dedicated software (MIP, Microix), and separation of funds by assigning charge codes to allocated budget categories and costs.